

PHOTOGRAPHY

FAQ

Q What is ISO speed and why is it so important?

A The term ISO comes from film cameras, where it denotes how fine a film's grain is. ISO 100 film produces sharper, smoother images than ISO 400, but is slower to react to light, which means slower shutter speeds and a risk of blur.

ISO speed in digital cameras refers to a different process, but the pros and cons of different speeds are the same. Take a picture at ISO 100 and you'll get a sharp, smooth image; in low light you'll need to use a slow shutter, which could lead to blur. At ISO 400 the shutter speed is four times as fast, and the camera boosts brightness by a factor of four to give a pleasing exposure. However, image noise – a speckled graininess – is boosted by a factor of four as well.

Ben Pitt

Music and photography expert

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NIKON Coolpix L5

★★★★

£192 inc VAT

The Coolpix L5 is at the top of Nikon's range of budget cameras. The chunky plastic body and use of AA batteries may be short on glamour, but the 7.1-megapixel sensor, 5x optical zoom lens with optical image stabilisation and 2.5" screen are anything but entry level.

The controls and menus are easy to use, with dedicated buttons for the optical image stabilisation and a Face Priority feature that detects faces to focus on. The stabilisation is highly effective at reducing blur from camera shake but Face Priority is less impressive, often struggling to find and keep track of faces in a composition. Most of the other options we'd expect at this price are included, but an ISO speed control is sadly absent. This is particularly unfortunate because the camera regularly set itself to low ISO speeds that resulted in more camera shake than the stabilisation could counteract. The Party/Indoor scene preset went some way to resolving the issue, but not far enough.

Performance is another weak area. The 2.5-second gap between shots is reasonable, but the four-second wait for the camera to switch on and take a picture is too long for a camera that costs almost £200. The flash recharged reasonably quickly but as our batteries

begin to run out we had to wait up to 10 seconds between flash photos. Battery life was poor at just 283 shots while most other cameras manage 400 to 500 from the same pair of NiMH AA cells we use for testing. Worst of all, once the batteries were depleted the camera switched off without retracting the lens. This could be a disaster if it happens while you're out and you don't have replacement batteries with you.

SUMMARY

- ✓ Well-specified lens
- ✗ Unreliable image quality
- ✗ Poor battery life

DIGITAL CAMERA 7.1 megapixels (3,072x2,304), 5x optical zoom (38-190mm), SD slot (8MB internal), 2x AA batteries
PART CODE 36715719
SUPPLIER www.pixmania.co.uk
DETAILS www.nikon.co.uk

PERFORMANCE (see page 56)

Battery life: 283 shots

-50% Reference +50% +100%



The best shots in our image-quality tests were extremely impressive, with stunningly sharp, clean detail and lifelike colours. However, these pictures were the exception rather than the norm. The camera's tendency to use shutter speeds as long as 1/4 of a second without bothering to raise the ISO speed meant many photos suffered from unnecessary blur as a result of camera shake. The image stabilisation helped us to produce sharp shots with shutter speeds as long as 1/125th of a second, though. Meanwhile, nudging up the ISO speed in the Party/Indoor scene preset, we found noise to be a problem at ISO 200 and above. Colours were variable, too. Bright, natural light gave consistently pleasing

colours but we had to use the white balance presets to get good results under artificial lighting. In very low light, photos had a weird smoky haze to them.

We've often been impressed by Nikon's no-frills, entry-level cameras, but the L5 is an odd mixture of entry-level design and lots of frills. We'd much prefer a simpler camera that's faster and more reliable, such as Fujifilm's FinePix F20 (reviewed on page 30).

Ben Pitt

Also consider...

SONY DSC-T30

★★★★★

£245 inc VAT



The DSC-T30 won a Best Buy award in our ultra-compact camera Labs test in *Shopper* December 2006. It is tiny but capable of taking amazing pictures. The 3x optical zoom has optical stabilisation, so you can take sharp pictures at shutter speeds as slow as 1/20th of a second. With excellent battery life and a 7.2-megapixel resolution, it's the perfect camera for carrying around.



DIGITAL CAMERA 7.2 megapixels (3,072x2,304), 3x optical zoom, Memory Stick Duo slot (58MB internal), li-ion battery
PART CODE DSC730S.CEH SUPPLIER www.amazon.co.uk
DETAILS www.sony.co.uk ✓ Accurate colour reproduction
✓ Optical image stabilisation FULL REVIEW Dec 2006

PANASONIC Lumix DMC-FZ50

★★★★★

£364 inc VAT



Panasonic's Lumix DMC-FX50 gives almost digital SLR performance on a much lower budget. The huge 12x optical stabilised zoom lens and 10-megapixel CCD allow you to get close to the action. Image quality is excellent at low ISO settings, but ISO 400 or higher produces grainy images. It's the best super-zoom camera on the market.



DIGITAL CAMERA 10.0 megapixels (3,648x2,736), 12x optical zoom (35-420mm), SD slot (32MB card supplied), li-ion battery
PART CODE PANLUMFZ50 SUPPLIER www.rankhour.com
DETAILS www.panasonic.co.uk ✓ Fantastic handling; beautiful pictures in well-lit conditions ✗ Image quality slumps as ISO setting rises FULL REVIEW Jan 2007

CANON EOS 400D

★★★★★

£480 inc VAT



Three years ago, Canon was the only manufacturer to produce an affordable digital SLR camera. Today, Nikon, Sony, Olympus, Pentax, Samsung and Panasonic all have models that cost around £500, but Canon has stood its ground, and its second-generation entry-level SLR, the 350D, was celebrated as the best-value SLR in our Awards issue in *Shopper* December 2006. This month, we finally get our hands on its successor, the EOS 400D.

The 350D and 400D look remarkably similar but there are a few obvious differences to their specifications. The 400D's CMOS sensor is up two megapixels to 10.1, while the 350D's 2" screen and passive LCD for camera settings have been replaced by a single 2.5" screen. As with Sony's Alpha A100 (*What's New, Shopper* January 2007), a proximity sensor below the viewfinder detects when the camera is raised to your eye and switches off the screen to avoid distracting you. The disadvantage of the larger screen is that battery life is down from the 350D's 650 shots, but 509 is respectable.

Dust can be a serious problem for SLR cameras, because if it gets inside the camera mechanism it can ruin photos. The 400D introduces a three-part Integrated Cleaning System to combat it: an anti-static coating on the sensor, a filter that vibrates to shake off dust and, for those really stubborn stains, a Dust

Delete Data feature, which involves taking a picture of a plain surface so that the accompanying software can identify marks and remove them from your pictures. In our experience, dust inside the camera is a rare problem, but when it does happen it's a serious grievance. We decided against emptying a vacuum cleaner bag into the 400D to test the cleaning system but we're pleased to see its inclusion nonetheless.

The 350D's seven-point auto-focus has been replaced by a nine-point auto-focus in the EOS 400D. The result is really fast focusing, even in low light and for relatively vague subjects. Shooting performance is much improved, too, with a 2.9fps capture rate. However, this lasted for only 30 shots at maximum JPEG quality and 10 shots in RAW mode, as the camera isn't as fast at saving to memory as it is at buffering shots. It managed to take 20 pictures in 15 seconds with the flash – the best we've ever seen – but required a few minutes to recover before it could do the same again.

Despite the lack of a dedicated screen for camera settings, the 400D is straightforward and quick to use. A pair of new buttons allow you to zoom in and out of captured pictures, and it now stores settings without you having to press the Set button. A new Picture Style option presents various presets for sharpness,

contrast, saturation and colour tone, and enables you to save your own, too.

In a compact camera we'd argue that 10 megapixels are more than enough, but with the superior image quality of SLR cameras we welcome the extra detail, as long as the optics and noise performance are up to scratch, too. Happily, the 400D's noise is as low as we've seen from a digital camera, with incredibly smooth photos at ISO 400, dependable results at ISO 800 and acceptable results at ISO 1600. Detail is just as sharp per pixel as that of the 350D, so the extra resolution makes a small but welcome improvement overall. Colours were generally excellent, but the white balance presets were necessary to compensate for artificial lighting. Portraits taken with the flash were actually quite flattering, which is something we can't often say.

With improved image quality and performance over the fantastic 350D and an extremely competitive price, there's little not to love about this camera. It's an obvious choice for enthusiasts upgrading from film or compact digital cameras.

Ben Pitt

SUMMARY

- ✓ Fantastic image quality
- ✓ Fast, accurate auto-focus
- ✗ Finite continuous mode

DIGITAL CAMERA 10.1 megapixels (3,888x2,592), 3x optical zoom (18-55mm), CompactFlash slot, Li-ion battery
PART CODE 1237B009AA
SUPPLIER www.amazon.co.uk
DETAILS www.canon.co.uk

PERFORMANCE (see page 56)



SONY Cybershot DSC-W30

★★★★★

£127 inc VAT



Small and comfortable to hold, Sony's DSC-W30 also takes excellent photographs. Sony's noise reduction does an excellent job of minimising noise without losing too much detail captured by the 6-megapixel CCD. The only slight disappointment is the low-resolution 85,000-pixel screen.



DIGITAL CAMERA 6 megapixels (2,816x2,112), 3x optical zoom, Memory Stick Pro Duo slot (32MB internal), 3.6V 944mAh Li-ion battery PART CODE DSCW30
SUPPLIER www.buyacamera.co.uk
DETAILS www.sony.co.uk ✓ Fantastic image quality
✗ Low-resolution screen FULL REVIEW Sep 2006

NIKON Coolpix L4

★★★★★

£73 inc VAT

One of the lowest-priced digital cameras, the Coolpix L4 is surprisingly good. The 4-megapixel sensor might seem a little low, but it's good enough for prints at 5x7". Image quality is excellent, comparing well with that of cameras costing three times as much. If you're on a tight budget it's a good choice.



DIGITAL CAMERA 4.0 megapixels (2,272x1,704 pixels), 3x optical zoom, 10MB internal memory, SD slot, 2x AA batteries PART CODE VVA640E6 SUPPLIER www.amazon.co.uk DETAILS www.nikon.co.uk ✓ Excellent image quality; excellent value ✗ Slow, especially in low light
FULL REVIEW Dec 2006

EPSON Perfection 2580 Photo

★★★★★

£89 inc VAT



The Epson 2580 Photo's lid contains an unusual motorised film feeder for loading strips of negatives. It feels sturdy and was very quick in operation, previewing six negatives in just 31 seconds. Despite its modest optical resolution, the Perfection 2580's crisp and detailed film scans are excellent, as are its reflective scans.



FLATBED SCANNER 2,400x4,800dpi optical resolution, 48-bit colour, USB Hi-Speed PART CODE B11B172122
SUPPLIER www.digitalkind.co.uk DETAILS www.epson.co.uk
✓ Excellent film scans ✗ Slight softness to reflective scans
FULL REVIEW Sep 2005

FUJIFILM FinePix F20 Zoom

★★★★★
£135 inc VAT



Billed as the little brother to Fujifilm's excellent FinePix F30, the F20 is a classy point-and-shoot camera that specialises in low-light photography. It lacks the F30's priority modes and ISO 3200 setting, and its battery life isn't quite as impressive. ISO 1600 is available, though, while the Anti-Blur and Natural Light scene presets use ISO 2000 to capture dimly lit scenes while keeping the shutter speed fast enough for handheld shots. The Flash and Natural Light preset takes two pictures, with and without the flash, allowing you to choose your favourite.

Performance is up to scratch, with two seconds between shots at the highest quality setting. The menus are fast to navigate and the auto-focus quickly locks on to its subject. Continuous shooting is a little slow, though, capturing a shot every 1.5 seconds.

Image quality was indiscernible from that of the F30, which means it produced the most pleasing colours we've seen from a compact digital camera. Exposure was perfect, while



the automatic white balance produced natural-looking shots regardless of the light source. Photos of brightly lit subjects were sharp, while in darker conditions the camera produced excellent results up to ISO 400. At ISO 800 and above the results were more varied. Some pictures looked excellent but others had a spattered, paint-like appearance when viewed at high magnification, which is the result of noise-reduction processing. However, an Auto (400) mode limits the ISO speed to 400 and lower, giving excellent results, while an onscreen icon warns of blur-inducing long shutter speeds.

The F20 has much in common with Sony's DSC-W30 (see page 29). It's not quite as fast or as compact, but image quality is even better, making it thoroughly deserving of a Best Buy award.

Ben Pitt

SUMMARY

- ✓ Superb image quality
- ✓ Excellent low-light photography
- ✗ Varying quality at high ISO settings

DIGITAL CAMERA 6.1 megapixels (2,848x2,136), 3x optical zoom (36-108mm), xD slot (10MB internal), li-ion battery
PART CODE N077830A
SUPPLIER www.rankhour.com
DETAILS www.fujifilm.co.uk

PERFORMANCE (see page 56)



CHOOSING A... Digital Camera

Follow the steps to find your ideal specs

RESOLUTION: 5 megapixels
ZOOM: 3x optical
MONITORING: 1.8" colour LCD screen
SUPPLIED MEMORY: 16MB
BATTERIES: Disposable
 Recommended minimum in grey

1 A digital camera with the specifications shown in grey above will suit someone looking for a point-and-click camera that produces images that look decent when printed at 7x5".

It has an LCD screen for previewing, reviewing and deleting shots and for changing the settings. These days such cameras cost under £100. Cheaper models are available, but their basic quality means they are best avoided.

2 An additional optical viewfinder allows you to take pictures when strong sunlight makes the LCD screen hard to see. It also lets you preserve the batteries by switching the screen off.

3 The camera's top resolution depends on the size of its charge-coupled device (CCD) sensor. A 5-megapixel camera produces 2,560x1,920 photos, but with higher resolutions you can enlarge photos more without making them blocky. Five megapixels is common, and you can get six or eight megapixels without spending a fortune.

4 A digital zoom only guesses the extra detail required to zoom in on a subject. Far better is an optical zoom with a moving lens that enlarges the image projected on the CCD. The lens should also have a quick and accurate auto-focus.

5 Serious photographers need manual control over focus, aperture, shutter speed and white balance and, ideally, plenty of buttons for quick access to these functions. Many cameras offer preset modes to improve results.

6 Consider hidden costs. Most cameras will require a memory card upgrade to at least 128MB if they are to hold more than a dozen pictures at a time. Some come with internal rechargeable batteries, making the camera compact, while some also accept AA batteries, allowing you to carry spares.

OLYMPUS FE-200

★
£150 inc VAT

Budget cameras aimed at casual snappers tend not to have a lot of photographic controls, but it's rare to find one as lacking in features as Olympus's FE-200. While it predictably lacks aperture and shutter speed settings, we were surprised to find ISO speed and white balance missing. The only photographic controls are for flash, macro, exposure compensation and a collection of scene presets.

There's not even a continuous mode for taking a quick succession of photos, but the reason for this became clear when we measured the camera's performance. An average of five seconds between shots is slow. There's a three-second delay between pictures when reviewing shots and no way to get rid of the text information across photos as you browse. However, most annoying is that the flash setting reverts to Auto every time you change the scene preset, which wastes valuable time.

The FE-200 has its good points: a 2.5", 150,000-pixel screen, a li-ion battery and 5x zoom lens, all wrapped in a smart metal case, which is impressive at this price. The lens is particularly welcome, extending further than the



usual 3x zoom. However, its impressive features don't add up to high picture quality. Detail was soft at best, and the unreliable auto-focus and poorly judged automatic settings meant that most pictures were hopelessly blurry. With no manual controls, we couldn't compensate for the problems.

The saving grace was an Image Stabilisation preset, which increased the ISO setting for faster shutter speeds in low light. Colours were no better though, with frequently under- or overexposed pictures and a yellow cast under artificial light.

We expect point-and-click cameras to have excellent automatic settings, but the FE-200 takes poor shots and offers no manual correction. Sony's Cybershot DSC-W30 (see page 29) is cheaper and better in every way.

Ben Pitt

SUMMARY

- ✓ Large zoom range
- ✗ Slow performance
- ✗ Poor image quality and too few controls

DIGITAL CAMERA 6.0 megapixels (3,888x2,592), 5x optical zoom (28-140mm), xD slot (24MB internal), li-ion battery
PART CODE 007812
SUPPLIER www.amazon.co.uk
DETAILS www.olympus.co.uk

PERFORMANCE (see page 56)

